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THE UNIVERSITY OF ALBERTA

A TEST OF MASLOW'S HIERARCHY OF HUMAN NEEDS: THE EFFECT OF ACCEPTANCE BY OTHERS ON ACHIEVEMENT-SEEKING BEHAVIOR

by

© KENNETH A. STEELE

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled: "A Test of Maslow's Hierarchy of Human Needs: The Effect of Acceptance by Others on Achievement-Seeking Behavior," submitted by Kenneth A. Steele in partial fulfilment of the requirements for the degree of Master of Arts.

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ABSTRACT

Hypotheses regarding the effect of personal evaluation by others on choice of working conditions were tested. Reinforcement theory suggests that persons would avoid working with others who negatively evaluated them and, instead would choose to work alone. In contrast, Maslow's theory of human needs (1954) predicts that negative evaluation would frustrate belonging needs so that a person would be more likely to affiliate with other individuals than to work alone.

Conversely, when one is positively evaluated Maslow's theory suggests that this would give one the confidence to pursue achievement on one's own, enabling one to work alone rather than to affiliate with others. Reinforcement theory predicts an attraction to the source of positive reinforcement, that is, there would be affiliation with positive evaluators. Seventy-two female subjects were either positively, negatively or neutrally evaluated by two other girls. The evaluation was simulated on a video tape shown to the subject. The subject then could choose either to join the evaluating group, a group which gave a neutral evaluation, or to work by herself. In addition the effect of need approval on affiliation was noted. Finally, ratings of liking for the evaluating and neutral group were obtained after the subject made her choice.

The group assessment of the subject was found to be significantly related to her choice ($p < .0005$) and expressed liking for the evaluating and neutral groups ($p < .001$ and $p < .01$ respectively). Those subjects who were negatively evaluated were more likely to choose the non-evaluating group, and those positively evaluated the evaluating group. Need approval did not significantly influence subject's choices. In the positive condition the results support the predictions of reinforcement theory, while in the negative condition the results support Maslow's predictions.

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INTRODUCTION

There is little doubt in most people's minds that unpleasant social situations are avoided. If the unpleasant social situation is found at one's place of work, then one will stop coming to work. Rejection by others is clearly unpleasant. It can lead to feelings of dissatisfaction, depression and alienation that can have a definite effect on task performance. For example, the factory worker who is ostracized by his fellow workers may end up quitting.[1] The lower-class student who reaches high school and finds himself surrounded by middle-class classmates who reject him may drop out.[2] In fact, acceptance by others appears to be a necessary precondition for adequate task performance.

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[1]For examples of the importance of integration to work satisfaction see:

Robert Blumer. "Work Satisfaction and Industrial Trends", p. 223-249. A Sociological Reader on Complex Organizations. Amita Etzioni, ed. (New York: Holt, Rinehart and Winston Inc.), 1969.

Elton Mayo and George F. Lombard. "Teamwork and Labor Turnover in the Aircraft Industry of Southern California", Harvard Business School: Business Research Studies, 32: October, 1944.

F. J. Roethlisberger and W. J. Dickson. Management and the Worker, Part IV (Cambridge: Harvard University Press), 1937.

Edward A. Shils and Morris Janawitz. "Cohesion and Disintegration in the Wehrmacht in World War II", p. 280-315. The Public Opinion Quarterly, Summer, 1948.

[2]For an example of lower class 'unbelongingness' in high school and its relationship to drop out rate see:

W. E. Schafer, C. Olexa and K. Polk. "Programmed for Social Class: Tracking in High School", Transactions, Vol. VII, No. 12, October, 1970.

Maslow (1954) places human needs in a hierarchy, the satisfaction of lower level needs being a necessary condition for the full pursuit of higher level needs. An examination of this hierarchy reveals that the need to be accepted by others ranks above physical and security needs, but below the need for esteem.[3] Esteem need satisfaction is based on feelings of mastery and competence, and achievement is the process by which one gains this feeling. In the case of achievement-seeking behavior, the locus of control is oneself. Social acceptance, however, is a reward that is conferred by others. The present study examines how the satisfaction or non-satisfaction of the need for social acceptance affects future behavior. The conceptual distinction between achievement and acceptance was operationalized so that achievement-seeking behavior was indicated if a person chose to perform a creative-type task by himself, and acceptance-seeking behavior was demonstrated if the person chose to affiliate with others in a helping role with only the potential for social interaction available - and no direct task performance permitted. Maslow's theory suggests the hypothesis that social acceptance is a necessary prerequisite to the pursuit of individual achievement. In other words, if a person is well-accepted socially, then he will possess the confidence to pursue task-achievement on his own.

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[3]A. Maslow. Motivation and Personality. (New York: Harper and Row), 1954.

An alternative prediction is suggested by reinforcement theory. According to operant conditioning principles, if social acceptance can be conceived of as a positive reinforcer, those individuals who are well-accepted by a group can be expected to repeat the behaviors which led to this reinforcer. This may entail not making other alternative responses, such as individual task-achievement, which might compete with 'group' social activities by removing the person from the group for a period of time. Thus, in contrast to Maslow, reinforcement theory suggests that persons well-accepted by others will stay with the group, while those who are not well-accepted will strike out on their own or look for other groups. We are thus left with two different predictions.

The present investigation devised an experiment to resolve these opposed predictions derived from reinforcement theory and Maslow's theory. Subjects were either accepted or rejected by others, then presented with a choice of either pursuing social interaction with others and not working on a task, or of working by themselves on the task. It is rather naive to assume that acceptance needs will be completely satisfied or not satisfied on the basis of how a person is treated by a group of strangers for just a short period of time. The motivational preferences that an individual has built up throughout his lifetime, and which he brings with him to the laboratory, exert a strong influence

as well. However, it may be possible that accepting or non-accepting social evaluations, even of short duration, are more important determinants of behavior than personality factors. In addition, there may be an interaction between the two. In order to take into account these dispositions some sort of scale was required to measure how motivated subjects were normally to seek acceptance versus achievement. The Crowne-Marlow Social Desirability Scale (1964) was used for this purpose, as it was both easy to administer and to score. Also, there was a considerable body of literature documenting its validity as a measure of need for approval from others.[4] In general, we expected subjects who scored high on this scale to have a stronger motivation to affiliate with others.

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[4] See:

C. E. Barthel and D. P. Crowne. "The need for approval, task categorization, and perceptual defence." Journal of Consulting Psychology. 26:547-555, 1962.

L. K. Conn and D. P. Crowne. "Instigation to aggression, emotional arousal and defensive emulation." Journal of Personality. 32:163-170, 1964.

D. P. Crowne and B. R. Strickland. "The conditioning of verbal behavior as a function of the need for social approval." Journal of Abnormal and Social Psychology, 1961.

D. P. Crowne and D. Marlow. The Approval Motive: Studies in Evaluative Dependence. New York: John Wiley and Sons Inc., 1964.

D. Marlowe. "Need for social approval and the operant conditioning of meaningful verbal behavior." Journal of Consulting Psychology. 26: 79-83, 1962.

D. Marlow and D. P. Crowne, "Social desirability and response to perceived situational demands." Journal of Consulting Psychology. 25: 109-115, 1961.

D. Marlowe et al. "The approval motive, vicarious reinforcement and verbal conditioning." Perception and Motor Skills. 19:523-530, 1964.

B. R. Strickland and D. P. Crowne. "Conformity

In operational terms the present study examined the following hypotheses:

1. (a) If the tastes and interests of the subjects are evaluated negatively by others, then she will choose to work on a creative task by herself and to avoid the negative group (Reinforcement theory).

1. (b) If the tastes and interests of the subject are evaluated negatively by others, then she will choose to be in the company of the non-evaluating group. (Maslow's theory).

2. (a) If the tastes and interests of the subject are evaluated positively, then she will choose to be in the company of those who positively evaluated her. (Reinforcement theory).

2. (b) If the tastes and interests of the subject are evaluated positively, then she will choose to work on a creative task by herself. (Maslow's theory).

METHOD

A. Subjects

72 female undergraduates were recruited from Sociology courses at the University of Alberta. Subjects were recruited on a voluntary basis, with assurances given by the recruiter that they would probably enjoy the experiment and find it interesting. Subjects ranged in age from 18 to 54 years, with most between 19 and 25 years old. Subjects were assigned

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under conditions of simulated group pressure as a function of the need for social approval." Journal of Social Psychology. 58:171-181, 1962.

to one of six conditions, depending on whether their need approval score was high or low and whether they were to receive a positive, neutral or negative evaluation from others. The decision to use only female subjects was based on the fact that there were more female subjects available.

B. Apparatus

Two video monitors were used during the experiment. One monitor employed a split-screen effect, showing a two-person group on one side and a subject waiting by herself on the other. The second screen also had a split screen with a group on one side and an empty table and chair on the other. Thus, all the subject's choice options for the task performance situation were visually presented to her. At the beginning of the experiment she saw the pairs of individuals on the screens engaged in casual conversation. She then saw the experimenter enter one of the screens, hand S's personality profile[5] to one of the pairs and then leave. The pair looked over the profile and then made its evaluation. They then returned to their casual conversation which lasted until the experiment was over. The same procedure appeared on the second screen with the second pair of women. In all cases, the groups were made up of confederates whose positive or negative evaluations to hypothetical profiles had been previously recorded on videotape.

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[5]See Appendix 1.

Other materials used during the experiment included the Crowne and Marlowe n-approval questionnaire[6] and a seven-point scale[7] to rate the degree of liking toward each group.

C. Procedure

Subjects came alone to the waiting room of the laboratory and were met by the experimenter. The experimenter asked the subject to sit down and answer the Crowne-Marlowe 'Personal Reaction Inventory' and to fill in two copies of a sheet entitled 'Personality Profile'. All these sheets were marked '#6' by the experimenter in front of the subject, before the subject filled them out. The experimenter explained to the subject that this meant she was the sixth subject in this particular group and that after she completed filling out the sheets, she would be taken into the laboratory room, indicating a door with a sign on it which read: 'Please do not enter: Experiment in Session'. This was done to give the impression that other subjects were to take part. Various piles of books 'left' in the waiting room were intended to support this impression. The experimenter left the room while the subject filled in her answers and returned after the questionnaires were completed. Upon entering, the experimenter said that he would go and tell the others that the next

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[6]See Appendix 2.

[7]See Appendix 3.

subject would be in soon. The experimenter also instructed the subject to wait there and that he would be back shortly.

This manoeuver accomplished two things: it provided additional reinforcement with regard to the presence of a group, and it also allowed the experimenter to go into the laboratory and turn on the video recorder prior to bringing the subject in.

Once the videotape was running, the experimenter returned to the waiting room and ushered the subject into the laboratory. The subject was told that the task had not yet started, that she was subject number six (there was a total of five subjects on the two screens), and that the task would begin once she chose one of the situations seen on the screen. She was told that the video monitors permitted the experimenter to sit in one place and observe the behavior he was interested in, in four different situations at once, and that it also gave her (the subject) the opportunity to preview situations she might be going to. The experimenter then explained that the reason the subject had been asked to fill in the 'Personality Profile' was because it might be useful for the groups to know something about her so that they could decide how best to use her should she decide to join them. The experimenter then told the subject he was going to give the profiles to the groups so that they could be looking them over while he came back and explained the task to her. He told her he shouldn't be gone more than

a few minutes. Indicating a sheet of paper on the table in front of the subject the experimenter stated that this was an explanation of the task, but that she needn't bother with it, as he would be reading it to her upon his return. The experimenter then left.

Assignment of conditions. The subject could see and hear the experimenter going to both of the groups. The reason for having all conditions visible on the screens was threefold: first it substantiated the experimenter's assertion that the video was set up so that he could observe all situations while sitting in one spot. Second, it ruled out the possibility that the subject might base her choice on a desire to be unobserved. And third, it ruled out the possibility that the subject might base her choice on a tendency to approach a situation which she had the opportunity to preview, rather than an unknown situation. The assignment of the accepting, non-accepting or neutral behavior occurred in the second two-person group visited by the experimenter. Prior to the experimenter's entrance, both groups were engaged in casual conversations. The conversations dealt with such topics as movies on television, courses taken at university and favorite pastimes. These conversations were interrupted by the experimenter who entered with the personality profile of the new subject. The experimenter apologized for keeping them waiting and said that it wouldn't be much longer before the task started. He then handed the personality profile to one

member of the group explaining:

> This is the personality profile of a new subject who may be joining you. You should look it over as it will help you decide how best to use her should she decide to join you. We will be starting in a couple of minutes.

The experimenter then left the first group, and they made their neutral evaluation (they looked at the profile, made no comments and then put it down), returning to their casual conversation. The experimenter, by this time, had reached the second group where the same procedure took place. When the experimenter left this second group and was supposedly on his way back to the subject, they evaluated the profile either negatively ('Can you believe this person!' said derogatively and followed by a derisive snicker) or positively ('I've seen this movie too. It was really good! I have a subscription to that magazine;) or neturally (they said nothing, just look at the profile and then put it down), after which they returned to casual conversation.

Task explanation. After the experimenter had returned to the subject he explained the task. The explanation was a smoke-screen for the real purpose of the experiment. The experimenter asked the subject to follow along as he read aloud the task explanation from the sheet in front of the subject.[8]

After reading the task explanation the experimenter told the subject that the task would take 30 minutes and that

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[8]See Appendix 4.

what he required from her was a snap decision, so that she could be assigned to a position and everyone could start the task. The experimenter pointed to the three alternatives on the screen that were available to the subject and asked what her preference was. At this point, the experimenter got up, as though to lead the subject to her chosen condition, so that the subject was forced to make a choice.

Post-experimental interview. Once the subject had made her choice the experimenter led her outside and asked her to sit down and evaluate the likability of each of the two groups. The subject was then told that the experiment was over. The experimenter then explained that he was actually interested in people's motivational processes and asked the subject why she had made the choice she did and why she hadn't made another choice. She was also asked if she had been told about the experiment, or if anything had made her suspicious. After answering these questions the subject was completely debriefed. This consisted of showing the subject the apparatus, explaining how the experiment was run and asking for her evaluation of the experiment's credibility. In no case did a subject disbelieve the deception involved.

Comments on procedure. It should be pointed out that the credibility of the evaluations on the tapes was not easily obtained. Seventeen separate takes were taped and over

an hundred subjects were run in pretrials and questioned concerning the credibility of the tape, the evaluations in particular. Additional checks on the evaluations were also made during the course of the experiment: The subject was viewed through a two-way mirror by the experimenter during the time when the evaluating group was making its evaluation of the subject's personality profile on the screen. Frowns, downcast expressions, nervous fidgeting and even tears were typical observations following the negative evaluation, while smiles and attentiveness to the group typically followed the positive evaluation. No change in facial expression or bodily movements was observed during the neutral evaluation. Subjects, after making their choice of working condition, were asked to rate the likeability of each of the groups on a seven-point scale.[9] Through an analysis of variance, evaluation was found to be significantly related to liking, providing further evidence of credibility. During the debriefing, each subject was shown how the experiment had been conducted and was asked for a frank assessment of the profile evaluations. In no case, did the subjects express disblief in the evaluation. Startled surprise was the typical reaction of the subjects when told the experiment was over. All these factors gave the experimenter confidence in the credibility of the tapes. It is doubtful if the tapes could be much improved. The evaluative comments made on the tapes

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[9]See Appendix 3.

might, however, be reinforced by the experimenter making similar evaluative statements. This would add a status factor, but would also strengthen the evaluative conditions. This might particularly encourage those who are positively evaluated to work alone. In addition, it might be interesting to have not only a neutral evaluation condition but a no evaluation condition, where the videos are turned off. This would allow us to guage the impact of visual stimuli on the subject's choice by permitting comparison with the neutral evaluation condition.

RESULTS

As Table 1 shows, the relationship between personal evaluation by others and choice of working condition on a creative task was statistically significant. Knowledge of the independent variable, evaluation by others, allows us to reduce our prediction error by 14%. True to reinforcement theory, those who were positively evaluated were more likely to affiliate with the evaluating group than with either the non-evaluating group or to work alone (58.3% made this choice). On the other hand, 62.5% of the negatively evaluated subjects chose to associate with the non-evaluating group. In addition, 37.5% of the neutrally and positively evaluated subjects chose to work alone, while 20.8% of those negatively evaluated chose this option. "Z" test comparisons were made between the proportions in the neutral and positive evaluation conditions

TABLE 1

THE EFFECT OF PERSONAL EVALUATION BY OTHERS ON CHOICE OF WORKING CONDITIONS

Choice of Condition	Personal Evaluation			Average
	Positive	Negative	Neutral	
Chooses to work alone	37.5%	20.8%	37.5%	31.9%
Chooses evaluating group	58.3%	16.7%	29.2%	34.7%
Chooses non-evaluating group	4.2%	62.5%	33.3%	33.3%
TOTAL	100.0%	100.0%	100.0%	99.9%
	(24)	(24)	(24)	(72)

(X^2 = 19.96, 4df, $p < .0005$)

(tau r = 0.14)

choosing to work alone and the proportions in the negative evaluation condition preferrring to work alone. In each case the comparison fell just short of statistical significance ($Z = 1.31$, $p = 0.10$). Thus, subjects who were negatively evaluated were more likely than subjects in the positive or neutral evaluating condition to affiliate with some sort of group - though not the rejecting one. This lends some support to Maslow's hypothesis that persons who are rejected by others will have their belonging needs frustrated and consequently will seek out social support - though clearly not the support of those who rejected them.

Table 2 shows that the relationship between need approval and choice of working condition is not statistically significant and that knowledge of need approval allows us to reduce our error in predicting choice by only 1%. There is a trend for those with high need approval to choose the evaluating group - 41.7% chose this option, while 27.8% of those with low need approval chose the same option. A "Z" test shows that the probability of getting a difference this great by chance is 0.10 ($Z = 1.27$). Subjects with low need approval, on the other hand, chose the non-evaluating group more often (38.9% of the time) as opposed to those with high need approval who chose this group 27.8% of the time. The probability of getting a difference this great by chance is 0.16 ($Z = 1.00$). The choice of working alone seems to be unaffected by one's level of need approval.

TABLE 2

THE EFFECT OF NEED APPROVAL ON CHOICE OF WORKING CONDITIONS

Choice of Condition	Need Approval		Average
	Low	High	
Chooses to work alone	33.3%	30.6%	31.9%
Chooses evaluating group	27.8%	41.7%	34.7%
Chooses non-evaluating group	38.9%	27.8%	33.3%
TOTAL	100.0% (36)	100.0% (36)	99.9% (72)

(X^2 = 1.71, 2df, p < .4253)

(tau r = 0.01)

Table 3 shows that the interaction effect of personal evaluation and need approval on choice of working condition is statistically insignificant when the main effects of evaluation and need approval are partitioned out. Controlling for level of need approval only allowed us to reduce our prediction error by 1% more than if we had relied on personal evaluation alone for our prediction.

Although the overall interaction effect is insignificant, examination of differences between cells illuminates trends important to the theories being considered. Holding level of need approval constant, the results of Table 3 show that for those subjects with a low level of need approval who chose to work alone, the difference between those who were negatively evaluated and those who were positively evaluated is insignificant ($Z = 0.89$, $p = 0.19$). The same holds true for those with high need approval who chose to work alone ($p = 0.19$). 50% of those S's with a low level of need approval who were evaluated positively selected the evaluating group, while only 8.3% of those with low need approval who were evaluated negatively did so. This difference is significant with $p < .01$. The same trend is seen with those S's who possessed high need approval; 66.7% of those positively evaluated chose the evaluating group, while of those negatively evaluated only 25.0% chose the evaluating group. This difference is significant ($Z = 2.10$, $p = .02$). Positive evaluation then seems to be strongly

TABLE 3

THE EFFECT OF PERSONAL EVALUATION BY OTHERS AND NEED APPROVAL ON CHOICE OF WORKING CONDITIONS

Choice of Condition	Personal Evaluation						Average
	Positive		Negative		Neutral		
	n Appr.		n Appr.		n Appr.		
	Low	High	Low	High	Low	High	
Chooses to work alone	41.7%	33.3%	25.9%	16.7%	33.3%	41.7%	32.0%
Chooses evaluating group	50.0%	66.7%	8.3%	25.0%	25.0%	33.3%	34.7%
Chooses non-evaluating group	8.3%	0.0%	66.7%	58.3%	41.7%	25.0%	33.3%
TOTAL	100.0% (12)	100.0% (12)	100.0% (12)	100.0% (12)	100.0% (12)	100.0% (12)	100.0% (12)

(x^2 = 0.51, 4df, $p < .97$)

(tau r = 0.15)

associated with choosing to affiliate with the evaluating group. This supports the hypothesis derived form reinforcement theory.

Choosing the non-evaluating group was strongly associated with being negatively evaluated for subjects with both high and low levels of need approval. This lends credence to Maslow's hypothesis that those who are rejected will seek social acceptance. Those subjects with high need approval chose the non-evaluating group 0.0% of the time when positively evaluated, 58.3% of the time when negatively evaluated and 25.0% of the time when subjected to the neutral evaluation. The differences between negative and positive ($Z = 3.1$ $p = 0.001$), between positive and netural ($Z = 1.78$ $p = 0.04$) and between negative and neutral conditions ($Z = 1.65$, $p = 0.05$) were all statistically significant. Those subjects with low need approval chose the non-evaluating group 8.3% of the time when positively evaluated, 66.7% of the time when negatively evaluated and 41.7% of the time when neutrally evaluated. The differences between positive and negative ($Z = 2.95$, $p = 0.002$) and positive and neutral conditions ($Z = 1.89$, $p = 0.03$) were statistically significant. The difference between negative and neutral conditions, however, was not significant ($Z = 1.25$, $p = 0.11$).

Tables 4 and 5 show the sources of liking for each of the groups. It was felt that the evaluation should have a definite bearing on whether or not the subject expressed

TABLE 4

ANALYSIS OF VARIANCE FOR LIKING

THE EVALUATING GROUP

Source	df	MS	F
Need Approval (A)	1	0.0139	0.0308
Evaluation by Others (B)	2	13.4305	29.7961*
A x B	2	0.1805	0.4006
Error	66	0.4507	

*$p < .001$

TABLE 5

ANALYSIS OF VARIANCE FOR LIKING

THE NON-EVALUATING GROUP

Source	df	MS	F
Need Approval (A)	1	0.8889	2.4789
Evaluation by Others (B)	2	1.9305	5.3839*
A x B	2	0.0972	0.2711
Error	66	0.3586	

*$p < .01$

liking for the groups or not, and this was found to be the case. The only statistically significant source of variance for the liking of both the Evaluating and the Non-evaluating group was the evaluation itself. Need approval or the interaction between need approval and evaluation had no significant effect on liking of the groups.

DISCUSSION

When people are positively evaluated they predominantly choose to be with the group that made that evaluation; when negatively evaluated they avoid the evaluating group. This finding supports the position of reinforcement theory, except that those who avoid the evaluating group choose the non-evaluating group, a choice that Maslow's theory predicts. The principle of generalization would lead reinforcement theory to predict avoidance of all groups in the experimental situation, while Maslow specifies that those who are negatively evaluated will seek the company of others. In addition S's were more apt to choose to work alone when positively or neutrally evaluated, although the results are not statistically significant. Another explanation for the observed affiliative choice of subjects when negatively evaluated can be derived from the results of research by Schacter[10] who found that subjects subjected to anxiety preferred to be in the presence of

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[10] S. Schacter. The Psychology of Affiliation, (Stanford: Stanford University Press), 1959.

others. He attributed this preference to a desire on the part of the subject to compare his emotional reaction with that of others in a similar situation[11] in order to guage its appropriateness. Maslow's concept of belonging needs is sufficiently broad enough to encompass Schacter's explanation as an explanation of the 'initial' behavior of a person seeking to satisfy his belonging needs. The advantage of Schacter's explanation is its greater specificity in terms of the present experiment's operationalization of affiliative behavior as merely being in the presence of others.

It is clear from the data that knowledge of personal evaluation by others is much more useful in predicting affiliative behavior (seeking acceptance vs. seeking achievement) than is need approval. This is the case despite the fact that the evaluation was brief and made by strangers while need approval is supposedly a constant of one's personality.

The present study differs from many studies of motivational states, in that the subject's choice of working condition had immediate and foreseeable behavioral consequences for the subject. In other cases, the subject's motivational state is defined by the interpretation of a

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[11] L. Festinger. "A Theory of Social Comparison Processes," Human Relations, 7: 117-140, 1954.

score, either of fantasy material[12] or of personal habit descriptions[13] by an experimenter and is unrelated to the experimental task in the eyes of the subject. The comments made by subjects in the post-experimental interview definitely confirm that those who chose the alone condition were also taking on an achievement-seeking role (e.g. 'It seemed like a challenge.' 'I wanted to see how well I could do.'). However, some of those who chose the group situation were not seeking acceptance, but avoiding an achievement role (e.g. 'I didn't want to do the tasks myself.' 'It was too much of an effort to do the tasks.'). A greater variety in the nature of tasks while still allowing creative expression of the total person might alleviate these objections to the alone condition.

In summary, while the results favor the predictions of reinforcement theory, there are indications that Maslow's theory is not to be entirely discarded. Positive evaluation coming from an actual peer group in a work situation might

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[12] See:

J. W. Atkinson. An Introduction to Motivation. (Princeton, N.J.: Van Nostrand), 1964.

D. C. McClelland. The Achieving Society. (Princeton, N.J.: Van Nostrand), 1961.

D. C. McClelland et al. The Achievement Motive. (New York: Harper and Row), 1953.

H. A. Murray et al. Explorations in Personality. (New York: Oxford University Press), 1938.

[13] See:

D. P. Crowne and D. Marlow. The Approval Motive: Studies in Evaluative Dependence. (New York: John Wiley and Sons Inc.), 1964.

A. L. Edwards. The Social Desirability Variable in Personality Assessment and Research. (New York: Dryden), 1957.

increase the numbers choosing to work alone, particularly where individual effort is prized. It is surprising that the evaluations as short as they were, and coming from others identified simply as 'other subjects' had such an impact. Further experimental work in this area would be well advised to take Schacter's findings into account.

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APPENDICES

APPENDIX 1: PERSONALITY PROFILE

PERSONALITY PROFILE

1. What is your favourite T.V. programme? _____

_____

2. What magazine do you read most frequently? _____

_____

3. What is the title of the best novel you've read recently?

_____

4. What was the last good movie you saw? _____

_____

5. What is your favourite pastime? _____

_____

APPENDIX 2: CROWNE-MARLOWE SOCIAL DESIRABILITY SCALE

Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to your personality. Mark each accordingly with either T. or F.

_____1. Before voting I thoroughly investigate the qualifications of all the candidates.

_____2. I never hesitate to go out of my way to help someone in trouble.

_____3. It is sometimes hard for me to go on with my work if I am not encouraged.

_____4. I have never intensely disliked anyone.

_____5. On occasion I have had doubts about my ability to succeed in life.

_____6. I sometimes feel resentful when I don't get my way.

_____7. I am always careful about my manner of dress.

_____8. My table manners at home are as good as when I eat out in a restaurant.

_____9. If I could get into a movie without paying and be sure that I wasn't seen, I would probably do it.

_____10. On a few occasions I have given up doing something because I thought too little of my ability.

_____11. I like to gossip at times.

_____12. There have been times when I felt like rebelling against people in authority even though I knew they were right.

_____13. No matter who I'm talking to, I'm always a good listener.

_____14. I can remember playing sick to get out of something.

_____15. There have been occasions when I took advantage of someone.

_____16. I'm always willing to admit it when I make a mistake.

Personal Reaction Inventory (2)

_____17. I always try to practice what I preach.

_____18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

_____19. I sometimes try to get even, rather than forgive and forget.

_____20. When I don't know something I don't at all mind admitting it.

_____21. I am always courteous, even to people who are disagreeable.

_____22. At times I have really insisted on having things my own way.

_____23. There have been occasions when I felt like smashing things.

_____24. I would never think of letting someone else be punished for my wrong-doings.

_____25. I never resent being asked to return a favour.

_____26. I have never been irked when people expressed ideas very different from my own.

_____27. I never make a long trip without first checking the safety of my car.

_____28. There have been times when I felt quite jealous of the good fortune of others.

_____29. I have almost never felt the urge to tell someone off.

_____30. I am sometimes irritated by people who ask favours of me.

_____31. I have never felt that I was punished without cause.

_____32. I sometimes think when people have a misfortune they only got what they deserved.

_____33. I have never deliberately said something that hurt someone's feelings.

APPENDIX 3: LIKEABILITY SCALE

PERSONAL REACTION TO GROUPS

Evaluate the likeability of the group that appeared on the screen, when you were facing the screens, by circling one of the following numbers.

1---------2---------3---------4---------5---------6---------7

like very much	like quite a bit	like slightly	indiff-erent	dislike slightly	dislike quite a bit	dislike very much

In comparison, how would you evaluate the likeability of the other group; the one on the right-hand screen.

1---------2---------3---------4---------5---------6---------7

like very much	like quite a bit	like slightly	indiff-erent	dislike slightly	dislike quite a bit	dislike very much

APPENDIX 4: TASK EXPLANATION

We are interested in how people do on creative tasks when working alone and when working with people around that they can talk to.

If you choose to work by yourself you will be asked to select <u>one</u> of the following activities <u>to see how well you can do working alone</u>.

1. Write a paragraph either criticizing or defending the use of examinations for evaluating university students.

2. Write a six line poem that is distinctively Canadian.

3. Draw a cartoon of one of your professors.

4. Write a letter to the Minister of the Environment, attempting to convince him to do something about an ecological problem in Canada that concerns you.

N.B. If you choose to do this you will be given the opportunity to <u>compare how well you did</u> with how well others have done.

If you choose to join a pair, you will serve as a resource person for the two girls who will each be working at one of the tasks listed in the left-hand column . . .

N.B. If you choose to do this <u>you will not actually be doing a task</u> yourself - rather you will be there to give opinions and suggestions if either girl indicates she needs help.